

REMARKS/ARGUMENTS

These remarks are made in response to the Office Action of March 17, 2009 (Office Action). As this response is timely filed within the three-month statutory period, no fee is believed due. The Office is expressly authorized, however, to charge any deficiency or credit any over-payment to Deposit Account No. 14-1437.

Claims Rejections – 35 USC § 103

In the Office Action, Claims 1, 3-5, 8-9, and 23-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hashimoto, *et al.*, "Tele-Handshake through the Internet", *IEEE Workshop on Robot and Human Communication*, 1996, pages 90-95 (hereinafter Hashimoto) in view of U.S. Patent 7,036,094 to Cohen, *et al.* (hereinafter Cohen). Claim 28 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hashimoto in view of Cohen, and further in view of Oakley, *et al.*, "Contact IM: Exploring Asynchronous Touch Over Distance," Proceedings of CSCW, New Orleans, USA, 16-20 November 2002 (hereinafter Oakley).

Although Applicants respectfully disagree with the rejections, Applicants have slightly modified Claim 1 in an effort to even more clearly define the present invention and to facilitate prosecution of the instant application. Claims 31-32 have been added. As discussed herein, the claim amendments and added claims are fully supported by the original disclosure and no new matter has been introduced.

Aspects of Applicants' Invention

It may be useful at this juncture to reiterate certain aspects of Applicants' invention. One embodiment of the invention, typified by Claim 1, is a method of communicating physical human interactions over a communications network.

The method can include performing an action on a first model by a first user located at a sending system. The first model represents at least a portion of a human body including at least one among a human head, a human face, a human back and an entire human body. The first model incorporates one or more sensors. The action of the first user includes at least one body movement of the first user and a change in facial expression of the first user;

The method also can include detecting portions or locations on the first model to which the first user applied force and an amount of force applied over time by each sensor. Each sensor is configured to generate and send data when a force is detected and the generated data specifies a time the force was detected, the amount of force detected, and the body part to which force was applied.

The method further can include collecting and analyzing the data generated by each sensor and determining the action intended by the first user; converting the data to markup language formatted data and encoding the data into one or more messages having an intermediate data format for transmitting the determined action over the communications network to a receiving system; receiving and interpreting the one or more messages by the receiving system to determine the action specified by the one or more messages; and simulating the action by performing the action on a second user at the receiving system using a second model by activating one or more actuators incorporated in the second model. The second model represents at least the portion of the human body.

See, e.g., Specification, paragraphs [0005]-[0006], [0022], [0025]-[0026], and [0028]-[0033].

The Claims Define Over The Prior Art

Hashimoto discloses a tele-handshaking system which allows two persons in two different locations to physically communicate with each other by shaking hands through

the system. As already discussed in the previous response, however, the present invention differs from Hashimoto at least in the following aspects:

- (1) Hashimoto does not disclose that the action of the first user includes at least one body movement of the first user and a change in facial expression of the first user, but only discloses the action as a physical contact between the operator and the hand shake device.
- (2) Hashimoto does not disclose converting the data to markup language formatted data and encoding the data into one or more messages for transmitting the determined action over the communications network to a receiving system.
- (3) Hashimoto does not disclose that the human body part represented by the first model can be a human head, a human face, a human back or an entire human body.
- (4) Since the tele-handshaking system of Hashimoto has only one intended action, namely shaking hand, it is not necessary for Hashimoto to determine the intended action from the data generated by the sensors and transmit the intended action to the receiving system.

Regarding the aspect (1), it was asserted in the Office Action that Hashimoto discloses that the action includes a body movement of the first user (handshake). Applicants believe that the handshake is not a body movement in the sense of the present invention because in the present invention the first model only represents at least a portion of a human body including at least one among a human head, a human face, a human back and an entire human body. Nonetheless, the claims have been amended to recite that the action of the first user includes at least one body movement of the first user and a change in facial expression of the first user.

Regarding the aspect (2), as already discussed in the previous responses, TCP as used in Hashimoto is a network protocol, not a markup language. The TCP protocol, which provides reliable network connections, has nothing to do with a markup language, which describes how text is to be structured, laid out, or formatted. It is noted that data

do not have to be converted to markup language formatted data in order to be transmitted using the TCP protocol.

Regarding the aspects (3) and (4), the Examiner stated in the Office Action that Hashimoto does not disclose that the portion of a human body includes at least one among a human head, face, back and entire human body, wherein the physical movement includes at least one of a body movement and a change in facial expression of the first user; nor does Hashimoto disclose determining the action intended by the first user. However, the Examiner further asserted in the Office Action that these features are disclosed by Cohen.

As already discussed in the previous response, the subject matter of Cohen, which concerns behavior recognition using gestures, has nothing to do with the subject matter of the present invention, which concerns communicating physical human interactions over a communication network. The subject matter of Cohen also has nothing to do with the subject matter of Hashimoto, which concerns a tele-handshaking system. Therefore, there is no reason for a person skilled in the art to combine Cohen with Hashimoto. Further, even if Cohen would be combined with Hashimoto, the combination would not reach the present invention for the reasons as discussed below.

Cohen discloses in col. 16, lines 62-67 the following:

Multiple camera views can be used to further refine the identification of static gestures. The best overall match from both views would be used to define and identify the static gestures. Furthermore, the system works not just for "hand" gestures, but for any static type of gestures, including foot, limb, and full body gestures.

Cohen discloses that the static gestures can include foot, limb, and full body gestures. However, these static gestures are not a portion of a human body of a model upon which an action can be performed in the sense of the present invention. It is noted that in the present invention, the body portion refers to what the model represents, not the human body portion itself. It is also noted that a gesture is not an action in the sense of

the present invention. A gesture, especially a static gesture, does not tell what action has occurred. It is further noted that Cohen does not disclose determining the action intended by the user by collecting and analyzing data generated by each sensor in the model. In Cohen, the gestures are viewed through camera, not determined by collecting and analyzing data generated by sensors.

Accordingly, the cited references, alone or in combination, fail to disclose or suggest each and every element of Claims 1 and 31-32. Applicants therefore respectfully submit that Claims 1 and 31-32 define over the prior art. Furthermore, as each of the remaining claims depends from Claim 1 while reciting additional features, Applicants further respectfully submit that the remaining claims likewise define over the prior art.

Applicants thus respectfully request that the claim rejections under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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